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ABSTRACT

Student editorials and letters to the editor that appeared in selected school newspapers during two school years (1949-1950 and 1973-1974) were analyzed to determine whether the more recent writing revealed characteristics usually associated with oral expression, a hypothetically negative influence of television viewing. In the analysis, only five of forty factors that were specifically chosen for their relationship to oral expression yielded significant change toward oral expression, suggesting that little movement toward oral style in formal writing had actually occurred. The lack of significant regional differences in editorials on 39 of the 40 factors might indicate national uniformity, although clusters of high frequencies of particular usage in papers from a region might indicate a tendency toward regional styles. Dale-Chall readability levels were lower for 1949-1950 materials than for 1974-1975 materials, with significant differences between the editorials and letters of 1949-1950, but no significant differences between the editorials and letters of 1973-1974. The findings appear to support the conclusion that vocabulary has expanded and syntax has become simplified in the 25 years between sampled materials. These changes appear to be evolutionary in nature, requiring attendant changes in instructional emphasis and the revision of the Dale-Chall readability formula. (RL)

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SYNCHRONIC AND DIACHRONIC ANALYSIS OF LINGUISTIC FACTORS IN THE WRITTEN COMPOSITION OF HIGH SCHOOL STUDENTS

Beatrice G. Leffert

In 1908, the idea that an author could record directly into some sort of "graphophone film-book" was the "wildest of speculations" which might "eliminate present wastes in reading" and demand the "early institution of organized research upon the various problems . . . in the practices of reading and learning to read" (Huey, 1908).

By 1975, recordings on film and tape, commonplace in school and at home, were partly blamed for a decline in achievement scores and for apparently widespread deterioration in reading and writing skills (Harnischfeger and Wiley, 1975). Oral expression has long been deemed "inferior" in style to written composition (Lull, 1929; Bushnell, 1930; Golub, 1937). By 1975, also, students in the first "television-generation" had moved through the school system. Radio and television had taken much of their free time since infancy (Schramm, Lyle, and Parker, 1961).

Since language can be said to mirror life (Sapir, 1921) and rapid changes in lifestyle may reflect the impact of new visual and oral media (McLukan, 1964), it might be suspected that the new and pervasive oral communication in students' environment could be associated with changes in writing style and perhaps even a "decline" in writing.

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Therefore, the question was posed: "Is the writing by this cohort measurably different from that of the previous generation?" Further, "If it is different, does the more recent writing reveal characteristics usually attributed to oral expression?"

To consider these questions, this investigation assayed (1) a linguistic comparison of students' actual composition from two eras, before and after "media" influence; (2) the establishment of a list of key attributes of oral expression as gleaned from prior research; and (3) an analysis of the degree to which these attributes were present in the nationwide stratified sampling from each year.

A range of forty linguistic factors which denoted oral style and were gleaned from prior research included syntactic elements such as use of simple and compound sentences, lexical elements such as use of short words and unusual words, and topical elements such as allusions to local, personal, and school events. These factors are shown in Table 1.

Sample

The major comparison was based on the first hundred words of forty-eight editorials from the school years 1949-50 and 1973-74. Of these, twenty-four editorials were chosen in a geographically stratified random selection from

513 1973-74 school newspapers made available by the Columbia Scholastic Press Association from the annual nationwide school press competition for that year. The twenty-four 1949-50 samples were similarly selected from a corpus of sixty papers received in response to nationwide solicitation by mail.

Since thirteen letters-to-the-editor found in these 1949-50 papers presented an opportunity to study an additional mode, an equal number of letters-to-the-editor were selected in a stratified random sampling from the 1973-74 corpus. These letters were compared with twenty-six editorials found in the same issues.

Treatment

A multiple analysis of variance in a 2 x 4 design (two time periods and four geographical regions) was performed to determine whether significant differences at the .05 level or better existed between the groups of editorials that were (1) twenty-five years apart and (2) from different regions. In addition, t-tests were performed to determine whether significant differences existed (1) between letters and matching editorials and (2) between letters that were twenty-five years apart. Significant results and apparent tendencies (noteworthy although not significant) towards change were then compared with the list of attributes of oral expression derived from review of previous research.

Findings

Table 1 shows the mean scores for each of the forty factors found in the 1949-50 and 1973-74 editorials and presents the statistical results of the multiple analysis of variance. Significant findings from editorials indicated (a) diachronic decreases for subordination ratio and for personal references, (b) diachronic increases for abstract nouns and for multisyllabic words, and (c) a diachronic rise in Dale-Chall readability grade level. One significant synchronic regional difference was found, for unusual words.

Significant time/region interactions, all relating to syntactic factors, were found for (a) subordination ratio, (b) subordinate connectives, (c) dependent clauses, (d) length of dependent clauses, (e) introductory prepositional phrases, and (f) complex and compound-complex sentences.

Letters-to-the-editor of 1949-50, compared with contemporary editorials, yielded eight synchronic differences although the matched set for 1973-74 yielded only three (involving different factors), indicating a diachronic shift.

Letters of 1973-74 compared diachronically with letters of 1949-50 yielded (a) decreases in the number of finite verbs in the present tense, rhetorical questions and direct quotations, and grammatical expletives; and

(b) increases in adverbial phrases and the number of unusual words.

The Dale-Chall readability grade level yielded a significant difference in three of the four comparisons. Readability level rose for editorials as well as for letters. And although the earlier letters were significantly lower in readability level than contemporary editorials of 1949-50, later letters and their matching editorials were not significantly different in readability grade level in 1973-74. A summary of all significant factors from the four groups compared is shown in Table 2.

Conclusions

Has students' writing changed? The findings of this study can be generalized only to those students who might be disposed to write, such as those who write editorials or letters for official school newspapers. Since the material published in most papers is reviewed by faculty, the assumption was made that the samples represent standard school practice and, chosen by stratified nationwide random selection, are statistically representative of the Western, Southeastern, Central, and Northeastern regions of the United States.

Findings appeared to support the conclusions that, diachronically, over a twenty-five year period, vocabulary had expanded and syntax had become simplified. Syn-

chronically, across geographic regions, writing nationwide was not different for this twenty-five yera period.

Specific conclusions regarding diachronic change in editorials in this study include:

(1) Increases in abstract nouns, multisyllabic words, and readability level indicate extension of writing vocabulary.

(2) The decrease in subordination shown by the reduced subordination ratio signifies a decrease in clausal embeddings. These may have been replaced by phrasal modification since a tendency was found for increased use of phrases modifying clauses or other phrases.

(3) The influence of oral expression might be seen in the significant decrease for subordination accompanied by apparent tendencies towards simplification. Although not significant, these simplifications were indicated by decreases in (a) type/token ration, (b) dependent clauses, (c) length of dependent clauses, (d) clauses modifying other clauses or phrases, (e) relative pronouns, (f) conjunctions, and (g) rhetorical questions and direct quotations.

(4) Evolution in usage was suggested by tendencies towards diachronic shift for frequencies of eighteen factors in the letters-editorials comparisons. Nine of the factors that were more frequent in 1949-50 letters than in editor-

ials. A different group of nine factors, inversely, were less frequent in the 1949-50 letters than editorials and more frequent in the 1973-74 letters than in their matching editorials.

(5) While it is possible that the five significant diachronic differences in editorials, of forty factors chosen, could have resulted from chance, it is noteworthy that of the nine vocabulary factors used in the study, three showed significant diachronic differences.

(6) Since thirty-five of these forty especially chosen factors did not show significant diachronic change in editorials, it appears that little diachronic change reflecting influence of oral expression had actually occurred in these writing samples.

Conclusions regarding synchronic changes in the editorials in this study include:

(1) Lack of significant differences for total mean scores of thirty-nine of the forty factors in editorials compared by region may indicate national uniformity overall.

(2) Significant interactions for six syntactic factors may indicate regional variations within each school year 1949-50 and 1973-74 even though only one syntactic factor (unusual words) yielded a significant diachronic difference overall for the twenty-five year period.

(3) Clusters of high frequencies in each region may

indicate a tendency towards regional style. Future monitoring of these tendencies may show whether the degree of uniformity is changing.

The Influence of Oral Expression

Did changes, if any, reveal the influence of oral expression? Of the five significant diachronic differences in editorials, only one (decrease for subordination ratio) indicates that writing is closer to the attributes of oral expression. However, the four other changes seem to indicate that editorial writing moved further away from oral style. The relationship of all ten significant differences (found in the diachronic comparisons, both of letters and of editorials) with the attributes of oral expression gleaned from previous reports is shown in Table 3.

Only five altogether (in letters and in editorials) of these forty factors specifically chosen for their relationship to oral expression yielded significant change in the direction of oral expression. Therefore it would seem that little movement toward oral style had actually occurred in this formal writing by these students.

Implications:

(1) Changes in these students' language styles appear to be evolutionary and do not seem to have undergone drastic deterioration. (2) Expanded oral communication may not have

greatly influenced formal writing style in editorials and letters except for increased substitution of cumulative phrasal modification in place of clausal subordination. (3) The tendency towards syntactic simplicity in this kind of formal expression may presage other changes which may extend the flexibility of English. (4) Specific instruction in dealing with intricate syntactic subordination found in textbooks and some literature may be necessary for future improvement of reading and writing. Lack of experience with subordination causes difficulty even in studying American writers such as Poe, Washington Irving, and O. Henry. (5) The significant increase in multisyllabic and abstract words requires revision of the Dale-Chall readability formula. It may be necessary to add a word list for secondary level in order to reflect more accurately current readability levels of high school textbooks.

Summary

In summary, the only significant effect of the expanded technology of oral communication through radio and television upon high school editorial writers' grammatical style (according to the samples analyzed in this study) appears to be simplification of syntax. A judgment that writing quality has become worse is forestalled by the significant increase in multisyllabic and abstract words. Such extension of vocabularly may be a content-related effect of

radio and television's pervasive and theatrical presentations of varied aspects of modern life. Perhaps revision of standards for rhetorical "quality" need take these syntactic and lexical changes under consideration. However, subordination, if it is not to be a lost technique, should be directly taught before and at the high school level.

Suggestions for Further Research

The significant diachronic decline over the past twenty-five years found in subordination ration, together with the nationwide variation indicated by significant interactions of time and region for six syntactic factors in this study, raise doubts about the widely held impression that syntactic complexity is the quintessential component of maturity in writing. This impression (that complexity, difficulty, and maturity are coterminous), reinforced for grammarians by the increase in T-unit length for fourth to twelfth grade samples reported by Hunt (1965), and inherent in syntactically-based readability formulas (Endicott, 1973; Botel, Dawkins, and Granowsky, 1973), stems from growth concepts limited to theories of child development. Syntax in speech and in modern writing appears to have taken a simpler form.

A purely developmental viewpoint may tend to exclude studies (Yngve, 1960; Miller, 1962; Mehler, 1966; Greene, 1970; Pearson, 1975) that suggest that true proficiency in expression is also keyed to interrelationships among

psychological and semantic factors. Further investigation should explore effectiveness in varying deployments of syntactic structures by adolescents and adults studied in a theoretical framework that incorporates purpose and environment, not merely chronological growth.

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Table 1

A Comparison of Editorials from 1949-50 and 1973-74 Based on Mean Scores, Diachronic Differences, and F-values for Time, Region, and Time/Region Interaction for Forty Linguistic Factors

Linguistic Factor	Mean Score 1949-50 A	Mean Score 1973-74 B	Difference between A and B	F-value Time	F-value Region	F-value Inter-Action
1. Type/token ratio	5.9092	5.7867	0.1225	0.350	1.069	1.988
2. Number of dependent clauses	3.9167	3.2083	0.7084	1.590	0.988	3.614*
3. Number of T-units	7.3333	6.9167	0.4166	0.616	2.340	1.190
4. Length of T-units	14.9250	15.1166	-0.1916	0.019	1.735	0.793
5. Number of incomplete sentences, fragments	0.4583	0.0417	0.4166	3.472	2.315	2.639
6. Number of simple sentences	2.3333	2.4583	-0.1250	0.056	1.715	0.742
7. Number of compound sentences	0.5833	0.5417	0.0416	0.033	0.298	1.093
8. Number of complex, compound-complex sentences	2.7917	2.5833	0.2084	0.234	0.857	5.517**
9. Subordination ratio	0.4092	0.3067	0.1025	4.899*	0.795	3.078*

*Significant at the .05 level of probability
**Significant at the .01 level of probability

Table 1 (continued)

Linguistic Factor	Mean Score 1949-50 A	Mean Score 1973-74 B	Difference between A and B	F-value Time	F-value Region	F-value Interaction
10. Length of dependent clauses	8.5083	7.5417	0.9666	0.704	2.120	3.244*
11. Number of dependent clauses following main verb	2.3333	2.5000	-0.1667	0.100	1.609	2.106
12. Number of dependent clauses modifying clause or phrase	1.2500	0.8750	0.3750	1.695	1.137	0.636
13. Number of introductory prepositional phrases	0.9167	1.0417	-0.1250	0.211	0.712	3.529*
14. Number of prepositional phrases modifying clause or phrase	1.2500	2.0833	-0.8333	3.484	0.302	2.021
15. Number of adverbial phrases	5.0417	4.7083	0.3334	0.297	0.402	2.733
16. Number of infinitives as modifier, complement	1.0000	1.7083	-0.7083	3.533	1.023	0.306
17. Number of relative pronouns	1.9583	1.3333	0.6253	1.859	2.477	0.361

*Significant at the .05 level of probability

Synchronic

Table 1 (continued)

Linguistic Factor	Mean Score 1949-50 A	Mean Score 1973-74 B	Difference between A and B	F-value Time	F-value Region	F-value Interaction
18. Number of coordinate connectives	1.000	0.7083	0.2917	1.256	0.846	0.162
19. Number of subordinate connectives	1.833	1.7083	0.1250	0.107	0.645	8.880**
20. Number of free modifiers	2.7917	3.3750	-0.5833	1.049	0.186	2.719
21. Number of passive verbs	1.3333	1.1250	0.2083	0.315	0.550	2.229
22. Number of linking verbs with adjectival predicate	1.0000	1.0417	-0.0417	0.016	0.189	0.707
23. Number of finite verbs in the present tense	3.6667	3.2500	.0.4167	0.289	0.536	1.215
24. Number of participles	1.4583	1.3333	0.1250	0.113	1.717	0.447
25. Number of expletives	0.8333	0.9167	-0.0834	0.068	1.164	0.335
26. Number of concrete nouns	8.5417	8.0833	0.4584	0.205	1.847	2.195
27. Number of abstract nouns	9.8333	12.6667	-2.8334	5.276*	0.338	0.326

*Significant at the .05 level of probability
**Significant at the .01 level of probability

Table 1 (continued)

Linguistic Factor	Mean Score 1949-50 A	Mean Score 1973-74 B	Difference between A and B	F-value Time	F-value Region	F-value Interaction
28. Number of concrete adjectives, noun adjuncts	4.4583	4.0417	0.4166	0.296	1.103	0.642
29. Number of abstract adjectives and adverbs	10.3333	9.3750	0.9583	0.554	1.785	0.277
30. Number of multisyllabic words	6.3750	9.9583	-3.5833	11.145**	1.668	1.167
31. Number of unusual words	0.9167	1.1250	-0.2083	0.307	3.649*	1.585
32. Number of fixed expressions	5.9583	5.8750	0.0833	0.021	0.823	0.953
33. Number of tentative expressions, modals	0.7083	1.0000	-0.2917	0.814	0.150	0.592
34. Number of negative opinions, negations.	0.6667	1.0417	-0.3750	1.601	1.179	0.125
35. Number of non-school allusions	0.2083	0.7083	-0.5000	4.000	0.111	0.296
36. Number of literary, historical, and cultural allusions	0.4167	0.7500	-0.3333	1.111	2.269	1.713

*Significant at the .05 level of probability
**Significant at the .01 level of probability

Table 1 (continued)

Linguistic Factor	Mean Score 1949-50 A	Mean Score 1973-74 B	Difference between A and B	F-value Time	F-value Region	F-value Interaction
37. Number of religious allusions	0.1667	0.1667	0.0000	0.000	0.667	1.333
38. Number of personal references	2.1250	0.7917	1.3333	4.204*	0.881	0.274
39. Number of rhetorical questions and direct quotations	0.6667	0.2917	0.3750	2.425	0.669	0.509
40. Readability level (Below 9th grade = 1; 9th - 12th grade =2; above 12th grade =3)	1.3750	1.9167	-0.5417	11.267**	2.378	0.778

*Significant at the .05 level of probability
**Significant at the .01 level of probability

Synchronic

Table 2

Summary of Significant Linguistic Factors in All Samples

Linguistic Factor	Editorials 1949-50 and 1973-74			Editorials Letters 1949-50	Editorials Letters 1973-74	Letters 1949-50 1973-74
	Time	Region	Interaction			
Type/token ratio				*		
Dependent clauses			*			
T-units					*	
Length of T-units					(-) *	
Complex and compound-cmplx. sent.			**			
Subordination ratio	*		*			
Length of dependent clauses			**			
Adverbial phrases						(-) *
Introductory prepositional phrases			*	*		
Subordinate connectives			**			
Finite verbs in the present tense				(-)**		*
Participles				*		
Grammatical expletives						**
Abstract nouns	(-)*			*		
Multisyllabic words	(-)**					
Unusual words		*				(-)**
Allusions to non-school events				*		
Literary, historical, and cultural allusions				*		
Personal references	*				(-) *	
Rhetorical questions and direct quotations.						**
Dale-Chall readability grade level	(-)**			*		(-) *

*Significant at the .05 level of probability
**Significant at the .01 level of probability

Synchronic

Table 3

Relation of Significant Diachronic Changes, 1949-50 and 1973-74, to Attributes of Oral Expression

Linguistic Factor	Editorials 1949-50 1973-74	Letters 1949-50 1973-74	Found in oral; in written expression	Relationship between oral and analyzed expression
Subordination ratio	*		Lower in oral; lower in later editorials	Similar
Adverbial phrases		(-)*	More in oral; more in later letters	Similar
Finite verbs, present tense		*	More in oral; fewer in later letters	Different
Grammatical expletives		**	Fewer in oral; fewer in later letters	Similar
Abstract nouns	(-)*		Fewer in oral; more in later editorials	Different
Multisyllabic words	(-)**		Fewer in oral; more in later editorials	Different
Unusual words		(-)**	More in oral; more in later letters	Similar

*Significant at .05 level
**Significant at .01 level

Synchronic

Table 3 (continued)

Linguistic Factor	Editorials 1949-50 1973-74	Letters 1949-50 1973-74	Found in oral; in written expression	Relationship between oral and analyzed expression
Personal reference	*		More in oral; fewer in later editorials	Different
Rhetorical questions direct quotations		**	Fewer in oral; fewer in later letters	Similar
Readability level	(-)**	(-)*	Lower in oral; higher in later letters and later editorials	Different

*Significant at the .05 level
**Significant at the .01 level

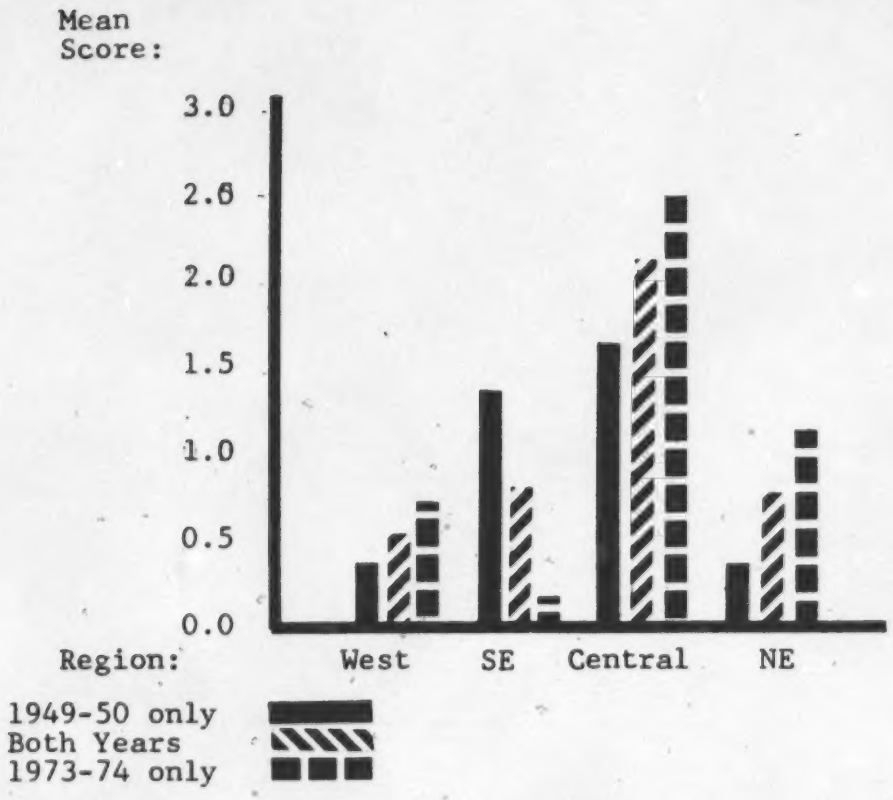

Figure 1

The Mean Number of Unusual Words in the First Hundred Words of Editorials, 1949-50, 1973-74, and Both Years Combined, Shown by Region; Mean of Both Years Combined. Significant at the .05 Level for Region; N=48

Table 4

Ten Major Distinguishing Characteristics of Oral Composition As Compiled in this Investigation and Presented in the Review of Related Research ~~in Chapter 2 on Pages 29-42~~

Scope of Comparison	Specific Quality	Noted by
1. Diversity and range of vocabulary	Wordiness Repetition	Bushnell; Fea; O'Donnell et al; Kelley; Loban; Green.
2. Structure of vocabulary.	Concrete Adj. Shorter words Unusual words Abbreviations contractions	Bushnell; Green; Golub
3. T-units.	Number Length	O'Donnell et al
4. Sentence structure.	Simple sentences Incomplete sent. Fewer complex or compound-complex sentences.	Bushnell; Harrell O'Donnell et al; Chiu; Fasick; Smitherman
5. Subordination ratio.	Fewer subordinate clauses Less coherent Less logical	Harrell, O'Donnell et al; Loban; Fasick
6. Connectives.	Coordinates	Harrell, O'Donnell et al; Green; Chiu; Smitherman

Table 4 (continued)

Scope of Comparison	Specific Quality	Noted by
7. Position of sentence movables.	Added-on phrases, natural order of clauses, appositives	O'Donnell et al; Kelley; Davies and Widdowson; E. Davis; Harrell; Green
8. Modifiers	Fewer participles, gerunds, infinitives	O'Donnell et al; Green; Chiu; Smitherman
9. Negations and personal statements.	More informal and Frequent criticism; personal references; interruptions.	Golub; Kelley
10. Verb forms	Fewer modals; More present tense; Fewer passives	Davies and Widdowson; Golub; Smitherman

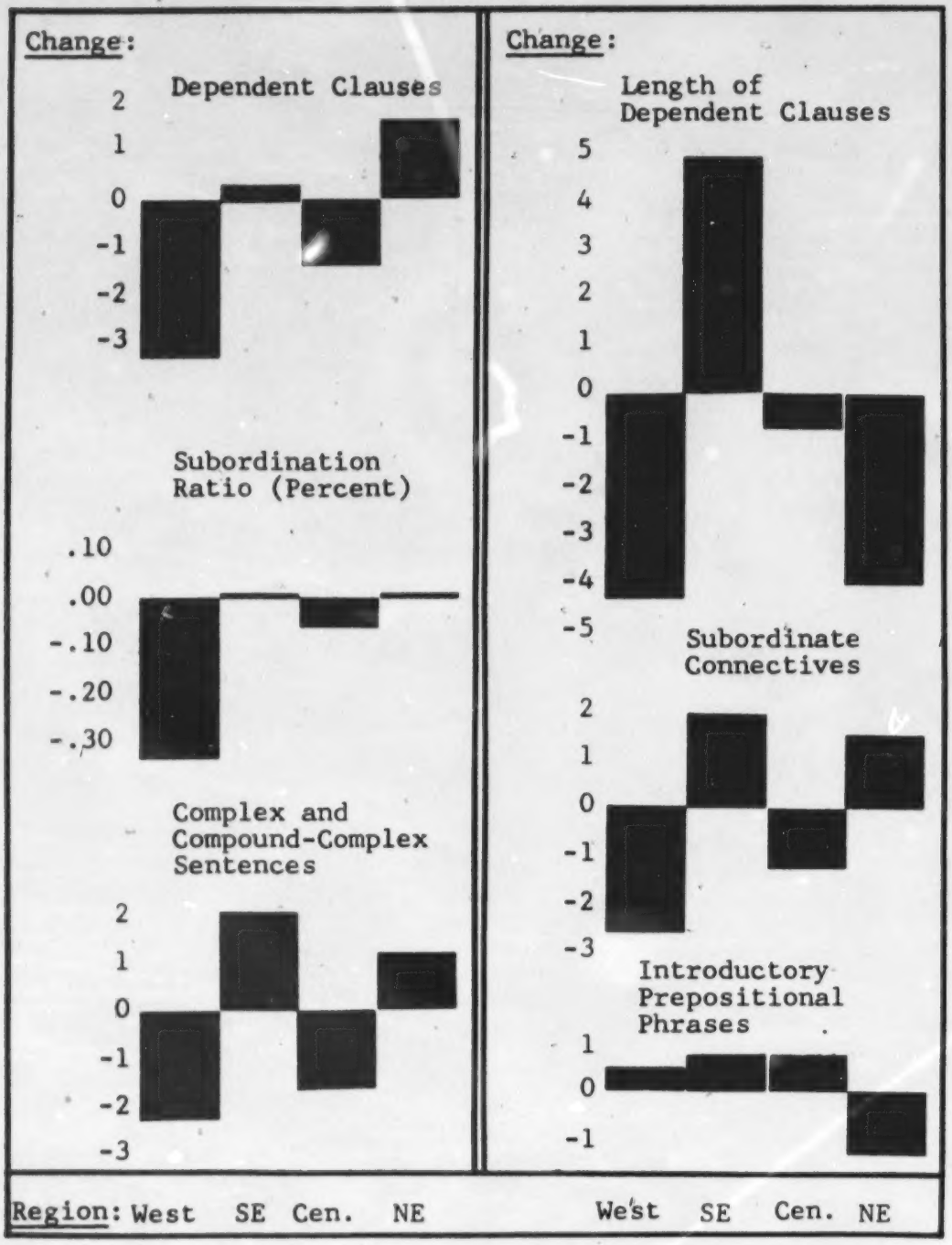

Figure 2

Amount and Direction of Diachronic Change, by Region, for Each of the Six Linguistic Factors Which Yielded Significant Time/Region Interaction for the First Hundred Words in Editorials, 1949-50 and 1973-74; N=48